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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,648	03/09/2004	Todd C. Ernst	29765.04000	2196
24024	7590	03/20/2006		
CALFEE HALTER & GRISWOLD, LLP 800 SUPERIOR AVENUE SUITE 1400 CLEVELAND, OH 44114			EXAMINER CABRERA, ZOILA E	
			ART UNIT	PAPER NUMBER
			2125	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/796,648

**Applicant(s)**

ERNST ET AL.

**Examiner**

Zoila E. Cabrera

**Art Unit**

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-21 and 23-33 is/are rejected.
- 7) ☒ Claim(s) 18 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8/8/05; 10/21/05.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-11, 13-15, 16, 19-21, 25, 27, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Henly et al. (US 6,611,735)**.

Regarding claims 1-6, 9-11, 13-15, 16, 19-21, 25, 27, and 30-33 **Henly** discloses:

1. A method for determining components of a blended material, the method comprising: accessing supply data describing characteristics of each of a plurality of components (Col. 1, lines 65-67; Col. 13, lines 66- Col. 14, line 9); receiving specification data identifying at least one desired characteristic of the blended material (Col. 2, lines 20-22); processing the supply data and the specification data to determine combinations of certain of the components that may produce the blended material having the at least one desired characteristic (Col. 9, lines 1-12, i.e. cetane number corresponds to the desired characteristic; Col. 15, lines 14-19; Col. 11, lines 38-40); determining, for each combination, a preferred percentage of each of the components of the combination (Col. 9, lines 65- Col. 10, lines 68, i.e. Vol. %); and reporting the combinations and preferred percentages (Col. 7, lines 57 and Col. 8, lines 1-3).

2. The method of claim 1, wherein the supply data includes a cost associated with each

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component (Col. 14, lines 10-16).

3. The method of claim 2, wherein the step of determining is based on a total cost of the blended material produced by the combination, the total cost being the sum of the percentage cost of each plastic component of the combination, the percentage cost of each component of the combination being the cost of the component multiplied by the preferred percentage of the component (Col. 1, lines 65 – Col. 2, lines 9).

4. The method of claim 1, wherein the at least one characteristic of the blended material includes a characteristic reflecting a physical property of the blended material ( Col. 1, lines 66-67).

5. The method of claim 4, wherein the at least one characteristic is a physical property relating to density (Col. 1, lines 66-67, physical property).

6. The method of claim 4, wherein the at least one characteristic is a grade characteristic (Col. 8, Table I, Grade 74).

9. The method of claim 1 wherein the determined combinations include a predetermined number of components (Col. 7, lines 45-67).

10. The method of claim 1 wherein the determined components include a number of components within a predetermined range (Col. 8, Table I, Min and Max).

11. The method of claim 1, wherein the percentage of each plastic component of each combination falls within a predetermined range (Col. 8, Table I, Min and Max).

13. The method of claim 1, wherein the specification data includes a range of values associated with one characteristic (Col. 8, Table I, Min and Max).

14. The method of claim 13, wherein the specification data includes a minimum value and a maximum value representing the range (Col. 8, Table I, Min and Max).

15. The method of claim 13, wherein the specification data includes a target value and at least one offset value (Col. 8, lines 36-65).

16. The method of claim 1, wherein the method is performed on a single computer (Abstract).

19. The method of claim 1, wherein the supply data includes data describing **at least one** additive which may be used in a manufacturing process; and wherein the step of processing includes processing the supply data describing the at least one additive (Col. 7, lines 57-67).

20. The method of claim 1, wherein the supply data includes data describing **at least**

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one enhancer which may be included in the blended material; and wherein the step of processing includes the supply data describing the at least one additive (Col. 7, lines 34-67).

21. The method of claim 1, wherein the supply data includes data describing at least one filler which may be included in the blended plastic material; and wherein the step of processing includes the supply data describing the at least one filler (Col. 7, lines 57-67).

As for claim 25, the same citations applied to claim 1 above apply as well for this claim.

With respect to the presumed component data, Henly discloses that a user can input the available raw material stocks, including their costs and available volumes (Col. 2, lines 1-9, presumed component data reads on the user inputs)

27. The method of claim 25, wherein the step of processing determines a plastic component which is not described by the supply data (Col. 2, lines 1-9).

As for claims 30-33, the same citations and comments applied to claims 1 and 25 above apply as well for these claims.

**Henly** discloses most of the limitations above, however, **Henly** does not disclose that the product is a plastic material. But it would have been obvious to a person of the

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ordinary skill in the art at the time the invention was made to apply the teachings of **Henly** and use such teachings for predicting and optimizing plastic materials because **Henly** suggests that his invention may be applied to other applicable industries that will have their own known methods of mixing, producing, and refining which result in known products (Col. 8, lines 1-9).

2. Claims 7-8, 12, 17, 23-24, 26 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Henly et al. (US 6,611,735)** in view of **Trenhaile et al. (US 2003/0084791 A1)**.

Regarding claims 7-8, 12, 17, 23-24, 26 and 28-29, **Henly** discloses the limitations of claim 26, the same citations applied to claim 4, above apply as well for this claim.

However, **Henly** does not disclose, the limitations of claims 7-8, 12, 17, 23-24 and 28-29. But **Trenhaile et al.** discloses such limitations as follows:

7. The method of claim 1, wherein reporting the combinations and preferred percentages includes sorting the combinations according to a cost associated with each combination (Fig. 9A).

8. The method of claim 1, further including determining, for each combination, a set of alternative percentages associated with the components of the combination ([0055]-0057]).

12. The method of claim 1, wherein the supply data includes an indicator of available volume for each component, the method further including determining a maximum volume of the blended *product* based on the available volume and percentage of each component (Fig. 7).

17. The method of claim 1, wherein the steps of processing and determining are performed on a remote computer ([0042]).

23. The method of claim 1, further including: receiving a selection of a desired blended material; and transmitting the selection to an inventory management application (Fig. 2, Inventory Control System).

24. The method of claim 1, further including: receiving target blended material data defining the components and percentages of a target plastic material; and wherein the step of determining includes calculating comparative cost data associated with each of the combinations and preferred percentages to be reported based on the target blended material data (Figs. 6-9).

28. The method of claim 24, wherein the supply data is an external store of data (Fig. 2).



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29. The method of claim 24, wherein the accessed supply data is a subset of a larger store of supply data (Fig. 1).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the teachings of **Henly** with the method for optimizing ingredient blending of **Trenhaile** because it would provide an improved method wherein ingredients or components can be selected in a certain manner based on existing or current inventory that will provide for product consistency while at the same time enabling the manufacturer to produce the product at an acceptable cost level (**Trenhaile**, [0013]).

#### ***Allowable Subject Matter***

3. Claims 18 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (571) 272-3738. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

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If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. Additionally, the fax phones for Art Unit 2125 are (571) 273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

A handwritten signature in black ink, appearing to read 'Zoila Cabrera', with a stylized flourish at the end.

Zoila Cabrera  
Patent Examiner  
3/13/06